

Remarks

Applicant respectfully requests reconsideration of claims as indicated above.

As previously pointed out, the invention as presently claimed pertains to a paperboard with a tie-layer in direct contact with the paperboard and with a nylon layer in contact with the tie layer. The nylon layer as claimed is an exposed layer (e.g., not covered with LDPE) that would contact the package contents when the packaging material is in use. It would allow added layers on the side of the paperboard opposite the tie layer/nylon structure, but no layer on top of the nylon layer. As such, there is no flavor scalping from the packaged product as would happen with LDPE, there is no "off-taste" given to the packaged product, and there is reduced absorption of moisture from packaged product.

Obviousness Rejections

4. At present, Claims 1 – 4 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Parks et al. in view of Zhang et al. (US 6,166,142).

Reconsideration of this rejection is requested in view of following remarks.

As noted in the present office action, Parks et al. is at least deficient in that it does not teach or suggest an exposed nylon layer (e.g., not covered with LDPE) that would contact the package contents when the packaging material is in use. Instead, Parks et al. requires an outer layer of a heat sealable olefin polymer. Not including the olefin polymer as the outer layer would thus destroy the invention of Parks et al. A prima facie case of obviousness thus cannot be made out.

Zhang et al. pertains to adhesive compositions based on "blends of grafted metallocene catalyzed and polar ethylene copolymers" (see title, abstract, claims). Zhang et al. teaches that these adhesives are useful in a number of applications, for example bonding to metals (col. 10, ll. 43 – 44), pipe coating (col. 10, ll. 44 – 46), as tie layers is multilayer films (col. 9, ll. 10 – 14, and col. 10, ll. 38 – 41), adhering to nylon (col. 9, 5 – 8, "the adhesive composition ... provides excellent adhesion to nylon 6, amorphous nylon to amorphous nylon/nylon 6 blends but is not limited to these substrates").

The office action erroneously cites Zhang et al., col. 9, 5 – 10, as stating that “the barrier layer is an amorphous nylon or amorphous nylon/nylon 6 blend.” Instead, it says, “the adhesive composition or layer provides excellent adhesion to nylon 6, amorphous nylon or amorphous nylon/nylon 6 but is not limited to these substrates” (col. 9, ll. 5 – 8) The only thing stated is that the adhesive composition provides excellent adhesion to substrates such as nylon 6, amorphous nylon or amorphous nylon/nylon 6. While the next sentence (col. 9, ll. 8 – 10) states that a preferred use of the adhesive is in “multilayer structures such as meat and/or cheese packaging where oxygen barrier properties as well as formability are required”, it does not say what the layers are. Also, see col. 10, ll. 38 – 42 where Zhang et al. teaches multi-layer packaging films where one or more layers is/are a barrier to oxygen or water or both. It goes on to state “such layers (that is the barrier layers) include EVOH, polyamides, polyesters, polyolefins, polystyrenes, ionomers, etc.”

Zhang et al further states that the adhesive composition is particularly useful for bonding to metals such as steel, aluminum, copper (col. 10, ll. 43 – 44), in addition to the “paper, foil, or olefinic or non-olefinic film or other multilayer structures” (col. 9, ll. 16 – 17).

Nothing in the references suggests picking paper as the substrate from the various substrates of Zhang et al. Nothing in the references suggests picking “amorphous nylon” or “nylon 6/amorphous nylon” for a barrier structure, when nothing in Zhang et al. distinguishes “nylon 6” from these two, the three “nylons” are identified as “substrates”, and an open-ended list of barrier layers is described. Only impermissible hindsight could result from the selection from the possible combinations. And, even if one were to make the selection, there is nothing to suggest modifying the structure of Parks et al. by eliminating the required outer layer of a heat sealable olefin polymer. Eliminating the heat sealable olefin polymer outer layer would destroy the invention of Parks et al. Therefore, based on well-established patent law, the present invention cannot be obvious because combining the references as suggested would result in the destruction of the invention in the reference being modified.

As argued in a prior response, Claim 8 differs still further from Parks et al. in paper thickness. Applicant sees no suggestion in the reference taken as a whole to employ paperboard having a weight of 20 to 200 grams/meter². The test for patentability is that the references taken as a whole must suggest the invention taken as a whole. There is nothing in the references to even suggest trying the claimed paper thickness (and "obvious to try" is not a proper basis for rejection).

In view of the above, Applicant requests withdrawal of rejection.

5. Claims 5 - 7 are rejected under 35 U.S.C. §103(a) as being unpatentable over Parks et al. in view of Zhang et al. as applied to Claims 1 - 4 and 8 and further in view of Zabrocki. Reconsideration of this rejection is requested.

Applicant repeats the above arguments for Claims 1 - 4 and 8 with respect to this rejection. First of all, Claims 5 - 7 ultimately all depend on Claims 1 - 4. Therefore, even if Zabrocki were correctly combined with Parks et al. and Zhang et al., it does not cure any of the deficiencies not cured with respect to Claims 1 - 4 and 8. Thus, for all the reasons discussed above, this rejection of Claims 5 - 7 cannot stand.

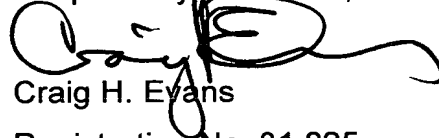
Further, Zabrocki has the objective of overcoming the barrier of incompatibility between polyolefins and thermoplastic polyurethanes. It does so by employing a compatibilizing amount of a modified polyolefin. Sure, it produces an adhesive with certain useful properties and "accordingly, ... can find utility in coating leather, fabric coating for upholstery, rainwear, adhesives for leather to vinyl, foam to vinyl, ABS, etc.; for surgical gloves, plastic laminating, and the like." This says nothing about use in "a flexible or semi-flexible packaging material with an oxygen barrier between 10 and 100 cc/m²d atm as determined by ASTM 3985 and a water vapor barrier between 100 and 1000 g/m²d at 38°C and 90% relative humidity, as determined according to DIN 53122 issued July 1982." There is no suggestion of using a copolyether ester, a copolyether amide or a polyurethane thermoplastic (other than based on applicants disclosure in the present case) in the way claimed in Claims 5 - 7.

For these reasons, the rejection of Claim 5 - 7 cannot stand, and Applicant requests withdrawal of rejection of claims 5 - 7.

Conclusion

In view of the above remarks and amendments, all claims are now in condition for allowance and notice to that effect is requested. If the Examiner believes that an interview would expedite allowance, the Examiner is urged to contact Applicant's attorney by telephone at (302) 992-3219.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Craig H. Evans", with a large, stylized "E" at the end.

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